

**WHAT IS CLAIMED:**

1. In a wireless communication system, having a controller and a plurality of remote sites, said controller being operable with at least one remote site through a communications link, a method of reporting system data comprising the steps of:

- 5      a. measuring system data at said at least one remote site; and
- b. reporting said measured system data to said controller, wherein said reporting of measured system data is performed without instruction from said controller.

2. The method of reporting system data as recited in Claim 1, wherein steps a and b are iteratively repeated for said at least one remote site during a time interval.

3. The method of reporting system data as recited in Claim 1, wherein steps a and b are iteratively repeated among substantially all of said remote sites within said system.

4. The method of reporting system data as recited in Claim 1 wherein said measured system data includes received signal strength at said at least one remote site link.

5. The method of reporting system data as recited in Claim 4 wherein measurement of said received signal strength is performed by measuring a level of a pilot signal transmitted to said at least one remote site.

6. The method of reporting system data as recited in Claim 1, wherein the step of reporting said measured system data is performed on a periodic basis.

7. The method of reporting system data as recited in Claim 1, wherein said communication link includes a forward link and a reverse link.

8. The method of reporting system data as recited in Claim 6, wherein said periodic reporting basis is selected as a function of a rate of arrival of data via said communication link at said at least one remote site.

9. The method of reporting system data a recited in Claim 8 wherein said reporting basis is less than said rate of arrival of data.

10. The method of reporting system data a recited in Claim 1 wherein the step of reporting measured system data is performed synchronously with data received at said at least one remote site via said communication link.

11. The method of reporting system data as recited in Claim 7 wherein system data of said forward link includes data collected at each of said at least one remote sites.

12. The method of reporting system data as recited in Claim 11 wherein system data of said forward link includes cumulative power history of each of said remote sites.

<sup>12</sup>  
13. The method of reporting system data as recited in Claim 7 wherein system data measured on said reverse link includes the Signal-to-Interference Ratio of each of said remote sites.

<sup>13</sup>  
14. The method of reporting system data as recited in Claim <sup>10</sup>11 wherein system data of said forward link includes received signal strength measured at each of said remote sites.

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15. A method of dynamically reporting system data in a wireless communication system, said wireless communication system being characterized by at least one base station and at least one mobile station, said mobile station being in communication with said base station through a communications link, said communication link having a forward link and a reverse link, the method comprising the steps of:

a. measuring, at said mobile station, base station forward link transmission parameters; and

10 b. reporting said transmission parameters to said at least one base station, wherein said reporting is performed without instruction from said at least one base station.

<sup>15</sup>  
16. The method of reporting system data as recited in Claim <sup>14</sup>15, wherein steps a and b are iteratively repeated for said at least one mobile station during a time interval.

<sup>16</sup> 17. The method of reporting system data as recited in Claim <sup>24</sup>15, wherein steps a and b are iteratively repeated among substantially all of said mobile stations within said system.

<sup>17</sup> 18. The method of reporting system data as recited in Claim <sup>14</sup>15 wherein said forward link transmission parameters include measured received signal strength.

19. The method of reporting system data as recited in Claim 15 wherein said wireless communication system further includes a switching center, said switching center being in communication with said at least one base station, said method further comprising the

5 steps of:

- a. collecting said reported transmission parameter data at said at least one base station;
- b. measuring said reported transmission parameters at said at least one base station corresponding to said at least one mobile stations; and
- 10 c. forwarding said reported transmission parameter data to said switching center, said reported transmission parameter data being forwarded without instruction from said switching center.

20. The method of reporting system data as recited in Claim 19 wherein said reported transmission parameter data includes measured received signal strength at said mobile station.

21. The method of reporting system data as recited in Claim 19, wherein steps a through c are iteratively repeated among substantially all of said base stations within said wireless communication system.

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